

REMARKS

Claims 1-28 are pending. In the Final Office Action mailed on January 17, 2006 the Examiner took the following action: (1) objected to claim 5 due to informalities; (2) rejected claims 1, 4, 5, 7, 13, 16, 21 and 24 under 35 U.S.C. §102(a) as being anticipated by Dougherty (U.S. 4258422); and (3) rejected claims 6, 17, and 25 under 35 U.S.C. 103(a) as being unpatentable over Dougherty in view of Silvian (U.S. 5350405). Applicants respectfully request reconsideration and withdrawal of the rejections in view of the foregoing amendments and the following remarks.

I. Objection to Claim 5

The Examiner objected to claim 5 due to informalities, namely, the phrase "being providing." Applicants have amended claim 5 to correct the informality noted by the Examiner. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to claim 5.

II. Allowable Subject Matter

Without further comment as to the merits of the Examiner's rejections, and without prejudice to subsequent continuation or divisional applications, Applicants have amended claims and canceled claims to expedite the issuance of the subject matter acknowledged as being allowable.

Specifically, claim 1 has been amended to include the limitations of claim 2 which was acknowledged as being allowable. Claim 2 has been canceled. Claim 3 has been amended to depend from claim 1. Accordingly, claims 1 and 3-12 are now in condition for allowance.

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Similarly, claim 13 has been amended to include the limitations of claim 14 which was acknowledged as being allowable. Claim 14 has been canceled. Claim 15 has been amended to depend from claim 13. Accordingly, claims 13 and 15-20 are now in condition for allowance.

Also, claim 21 has been amended to include the limitations of claim 22 which was acknowledged as being allowable. Claim 22 has been canceled. Claim 23 has been amended to depend from claim 21. Accordingly, claims 21 and 23-28 are now in condition for allowance.

III. New Claims 29-31

New claim 29 recites a method of simulating a volume of liquid within a tank during motion, comprising: receiving tank geometry information into a processing component of a computer system; receiving sensor configuration information into the processing component; receiving tank motion information into the processing component; computing one or more fuel-plane-to-sensor intersections for at least one tank position based on the tank motion information using the processing component; computing one or more wetted volumes, each wetted volume being computed at a fuel-plane-to-sensor intersection for each sensor location based on the sensor configuration information using the processing component; and computing a fuel quantity at every fuel-plane-to-sensor intersection based on a sum of the one or more wetted volumes using the processing component.

Dougherty (U.S. 4,258,422)

Dougherty teaches a liquid gauging system with a probe, where the probe produces a length signal dependent upon the length of the probe being immersed in liquid. (1:44-46). The system includes a storage apparatus for storing characterization parameters for determining liquid volume in a particular tank based on the length signal and characterization parameters.

(1:47-52). Specifically, Dougherty teaches using an input of "total wetted sensing length versus volume" data to compute actual fuel quantity (8:66-9:7). The total wetted sensing length is the total signal obtained from the combination of all fuel gauge probes within a fuel tank. (8:56-61).

Dougherty, either singly or in combination with the other cited references, fails to disclose or fairly suggest the method recited in claim 29. More specifically, Dougherty fails to teach or suggest a method including receiving tank geometry information *into a processing component of a computer system*, receiving sensor configuration information *into the processing component*, and receiving tank motion information *into the processing component*. Accordingly, new claim 29 is allowable. Claims 30-31 depend from claim 29 and are allowable over the cited references due to their dependency on claim 29 and also due to additional limitations recited in those claims.

CONCLUSION

For the foregoing reasons, Applicants respectfully submit that pending claims 1, 3-13, 15-21, and 23-28, and new claims 29-31, are now in condition for allowance. If there are any remaining matters that may be handled by telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Respectfully Submitted,

Dated: April 17, 2006

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